AC Transit
Alameda-Contra Costa Transit District

10626 East 14th Street, Oakland, California 94603☐ (510) 577-8804
FAX☐ (510) 577-8859

November 16, 2000

Ms. eva chu
Alameda County Health Division
Division of Environmental Protection
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

Dear Ms. chu:

Subject: Quarterly Groundwater Monitoring Report, AC Transit, 1177 47th Street, Emeryville

AC Transit hereby submits the enclosed quarterly groundwater monitoring report for the AC Transit facility located at 1177 47th Street in Emeryville. The report was prepared by our consultant, Safety-Kleen Consulting (formerly Environmental Decision Group) and contains the results of the August 2000 sampling event.

Ground water samples from the 14 on-site monitoring wells (MW-1 through MW-10, W-1 through W-4) were collected and analyzed for total extractable petroleum hydrocarbons (TPH) using modified EPA Method 8015 and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tert-butyl ether (MTBE), and gasoline using EPA Method 8021B. Depth to ground water was measured in each well and ground water contour maps were developed for the report.

Analytical results indicate that TPH was detected in all wells except well W-3 and MW-4 at concentrations that ranged from 180 to 76,000 ppb. Benzene concentrations above the California maximum contaminant level of 1 ppb were found in wells W-1 and MW-6 at 20 ppb and 60 ppb, respectively. MTBE was detected in four monitoring wells with concentrations ranging from 25 ppb to 65 ppb.

If you have any questions regarding this report or other matters pertaining to this site, please call me at (510) 577-8869.

Sincerely,

Suzanne Patton

Suzanne Patton, P.E.
Environmental Engineer

enclosure

GROUNDWATER MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1177 47th STREET, EMERYVILLE, CALIFORNIA

November 8, 2000

Prepared For:
Ms. Suzanne Patton
AC Transit
10626 E. 14th Street
Oakland, California 94603

Prepared By:
Safety-Kleen Consulting
2233 Santa Clara Avenue
Alameda, California 94501

Project No: 792551

GROUNDWATER MONITORING REPORT FOR THE AC TRANSIT FACILITY LOCATED AT 1177 47th STREET, EMERYVILLE, CALIFORNIA

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Ms. Suzanne Patton
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Oakland, California 94603

Prepared By:

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2233 Santa Clara Avenue
Alameda, California 94501

Project No: 792551

Reviewed By
Brad Wright, REG, CHG.
Senior Geologist

STATE OF CALIFORNIA REGISTERED GEOLOGIST #6276 BRADLEY D. WRIGHT REGISTERED GEOLOGIST

Written By
Brady Hanson
Geologist I

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INTRODUCTION

This report presents the results from the August 2000 sampling event for the AC Transit Facility located at 1177 47th Street, Emeryville, California (Site). Groundwater sampling of monitor wells MW-1 through MW-10 was reinstated in August 1999, in accordance with directives from Alameda County Health Care Services (ACHCS). In a letter dated February 2, 2000, ACHCS requested that the status of monitor wells W-1 through W-4 be determined, and if found, be included in the quarterly sampling events. In addition, the February 2, 2000, letter requests that analysis for methyl tert-butyl ether (MTBE) and gasoline be performed on all Site monitor wells. AC Transit retained Safety-Kleen Consulting to perform this work.

OBJECTIVES AND SCOPE OF WORK

Work performed during this sampling event included measuring depth to water in the monitor wells and sample collection.. Groundwater samples were analyzed for total extractable petroleum hydrocarbons (TEPH) using Environmental Protection Agency (EPA) Method 8015 Modified and benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary-butyl ether (MTBE), and gasoline by EPA Method 8021B.

A site map displaying the monitoring well locations is presented as Figure 1. Chain-of-custody documents, field data sheets and certified analytical reports are included in Appendix A.

Groundwater Elevations and Flow Direction

On August 30, 2000, all 14 Site monitor wells were inspected and measured for the presence of free phase hydrocarbons and depth to groundwater. Measurements of depths to groundwater are presented on Table 1 and were used to construct the groundwater elevation contours shown in Figure 1. A free phase hydrocarbon sheen was detected in MW-6 during this sampling event. As shown on Figure 1, groundwater flow is to the west at a gradient of 0.013 feet/foot.

Groundwater Sampling Activities

The monitor wells were purged a minimum of three casing volumes using a centrifugal pump and samples were collected using disposable polyethylene bailers in all wells except W-2. During well purging, field parameters for pH, electrical conductivity and temperature were monitored using calibrated field meters.

Groundwater samples were transferred to 40-milliliter glass vials preserved with hydrochloric acid and one-liter non-preserved amber glass containers and placed in an ice-filled cooler for shipment under chain-of-custody to a State of California certified laboratory. A trip blank was submitted for analysis by EPA Method 8021B.

Monitor well W-2's casing damage did not allow for use of a bailer to collect groundwater samples. Samples from W-2 were collected using ¼-inch polyethene tubing which was allowed to fill with groundwater sealed at the surface and extracted from the well. The surface seal was then released allowing the groundwater to flow from the tubing into the laboratory containers.

Groundwater Analytical Results

Table 2 presents groundwater analytical results for the August 2000 sampling event. TPH was detected in all Site monitor wells except for MW-4 and W-3. Concentrations of TPH above laboratory reporting limits ranged from 180 to 76,000 parts per billion (ppb). Benzene was detected in wells W-1, and MW-6, at concentrations of 20 ppb, and 60 ppb, respectively. These concentrations are above the maximum contaminant level (MCL) for benzene of 1.0 ppb. Toluene, ethylbenzene and xylenes were detected in monitor wells MW-6, W-1, and W-2 at concentrations below the MCLs. MTBE was detected in MW-1, MW-2, MW-5, and MW-10 at 49 ppb, 65 ppb, 59 ppb, and 25 ppb respectively.

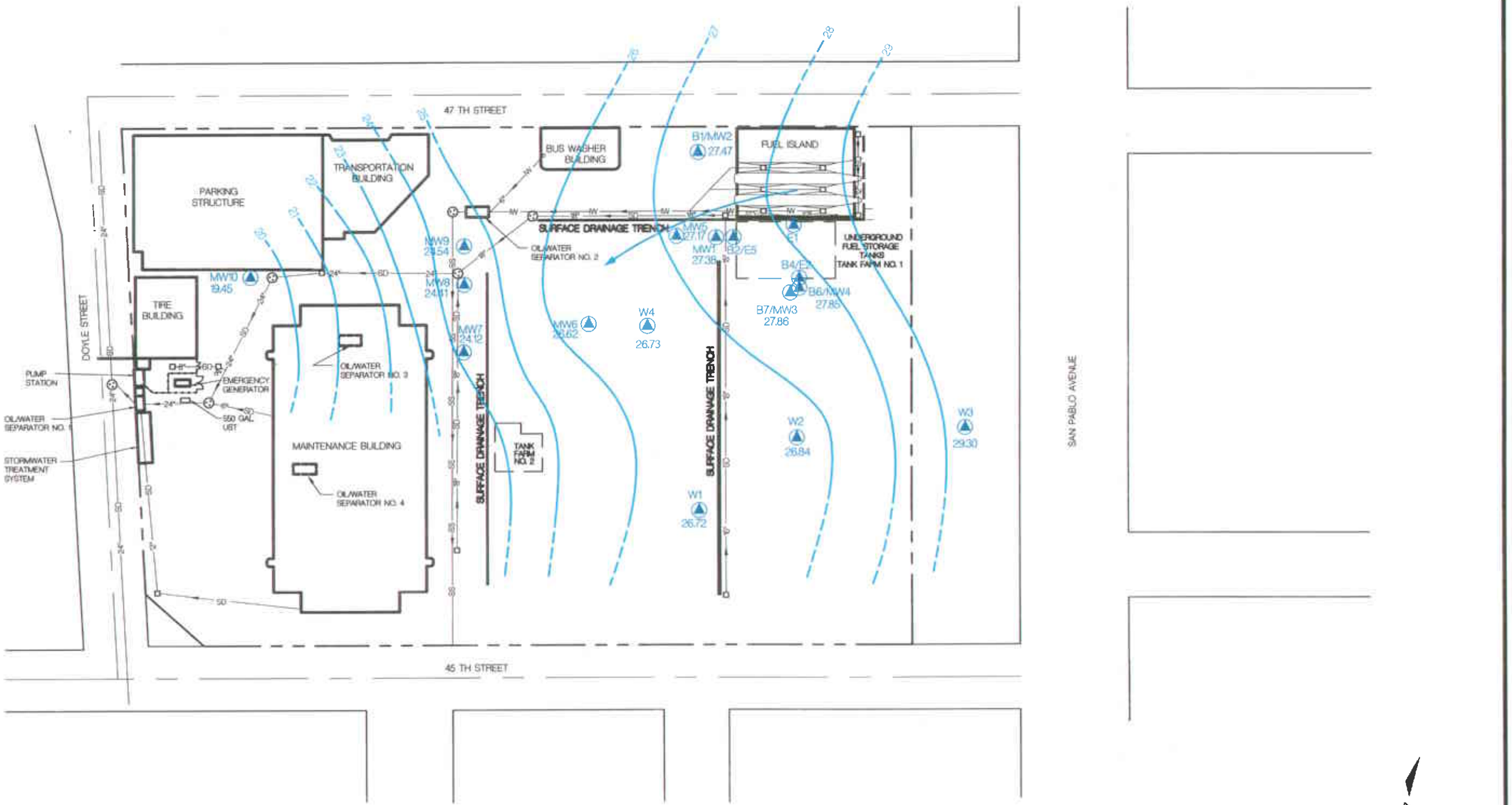
No analytes were detected in the trip blanks or method blanks. A lab control spike and lab control spike duplicate passed the EPA's criteria for acceptance.

SUMMARY OF RESULTS

- MTBE was detected in monitor wells MW-1, MW-2, MW-5, and MW-10.
- Benzene was detected in W-1, and MW-6 above the MCL of 1 ppb.
- A free phase hydrocarbon sheen was present in MW-6.
- TPH was detected in all Site monitor wells except MW-4 and W-3.
- Groundwater flow is to the west at a gradient of 0.013 feet/foot.

PROJECTED WORK AND RECOMMENDATIONS

- Additional site groundwater investigations are scheduled for the fourth quarter 2000.
- Quarterly groundwater monitoring is scheduled for December 2000.



LEGEND

MONITORING WELL	CATCH BASIN
REPORTED GROUNDWATER FLOW DIRECTION	SD — STORM DRAIN PIPELINE
MANHOLE	SS — SANITARY SEWER PIPELINE
19.54 POTENTIOMETRIC SURFACE ELEVATION	IW — INDUSTRIAL WASTE PIPELINE
POTENTIOMETRIC SURFACE CONTOUR	CHAIN LINK FENCE

	BY	DATE
DRAWN	WRB	9/12/00
CHECKED		
APPROVED		
APPROVED		
APPROVED		

safety-ideen consulting

FIGURE 1

EMERYVILLE FACILITY - OAKLAND CALIFORNIA

AC TRANSIT - POTENTIOMETRIC SURFACE MAP AUGUST 30, 2000

SCALE: 1" = 100'

DWG. NO: 792551-008

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
MW-1	8/31/99	32.56	None	3.24	29.32	NA
	11/23/99		None	4.55	28.01	NA
	3/1/00		None	3.65	28.91	NA
	5/17/00		None	4.08	28.48	NA
	8/30/00		**None**	**5.18**	**27.38**	**NA**
MW-2	8/31/99	32.12	None	5.24	26.88	NA
	11/23/99		None	4.03	28.09	NA
	3/2/00		None	3.11	29.01	NA
	5/17/00		None	3.66	28.46	NA
	8/30/00		**None**	**4.65**	**27.47**	**NA**
MW-3	8/31/99	34.06	None	6.15	27.91	NA
	11/23/99		None	5.78	28.28	NA
	3/1/00		None	4.82	29.24	NA
	5/17/00		None	5.29	28.77	NA
	8/30/00		**None**	**6.20**	**27.86**	**NA**
MW-4	8/31/99	34.11	None	6.22	27.89	NA
	11/23/99		None	6.01	28.10	NA
	3/1/00		None	4.74	29.37	NA
	5/17/00		None	5.33	28.78	NA
	8/30/00		**None**	**6.26**	**27.85**	**NA**
MW-5	8/31/99	31.70	None	4.51	27.19	NA
	11/23/99		None	4.00	27.70	NA
	3/1/00		None	3.31	28.39	NA
	5/17/00		None	3.59	28.11	NA
	8/30/00		**None**	**4.53**	**27.17**	**NA**
MW-6	8/31/99	31.02	0.40	4.40	26.62	26.94
	11/23/99		Sheen	3.81	27.21	NA
	3/2/00		0.02	2.88	28.14	28.16
	5/17/00		None	3.44	27.58	NA
	8/30/00		**Sheen**	**4.40**	**26.62**	**NA**
MW-7	8/31/99	29.62	None	5.47	24.15	NA
	11/23/99		None	4.93	24.69	NA
	3/2/00		None	4.06	25.56	NA
	5/17/00		None	4.69	24.93	NA
	8/30/00		**None**	**5.50**	**24.12**	**NA**
MW-8	8/31/99	29.43	None	5.35	24.08	NA
	11/23/99		None	4.75	24.68	NA
	3/2/00		None	4.48	24.95	NA
	5/17/00		None	4.78	24.65	NA
	8/30/00		**None**	**5.02**	**24.41**	**NA**
MW-9	8/31/99	29.18	None	4.15	25.03	NA
	11/23/99		None	3.93	25.25	NA
	3/2/00		None	3.69	25.49	NA
	5/17/00		None	3.56	25.62	NA
	8/30/00		**None**	**4.64**	**24.54**	**NA**
MW-10	8/31/99	29.13	None	9.59	19.54	NA
	11/23/99		None	9.44	19.69	NA
	3/2/00		None	9.06	20.07	NA
	5/17/00		None	9.31	19.82	NA
	8/30/00		**None**	**9.68**	**19.45**	**NA**

TABLE 1
GROUNDWATER LEVEL MEASUREMENTS
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	Top of Casing Elevation (ft msl)	Product Thickness (feet)	DTW (feet)	Groundwater Elevation (ft-msl)	Groundwater Elevation Corrected from Product Thickness* (ft-msl)
W-1	3/2/00	33.43	None	4.08	29.35	NA
	5/17/00		None	5.41	28.02	NA
	8/30/00		None	6.71	26.72	NA
W-2	5/17/00	34.21	None	5.6	28.61	NA
	8/30/00		None	7.37	26.84	NA
W-3	5/17/00	37.46	None	6.38	31.08	NA
	8/30/00		None	8.16	29.30	NA
W-4	3/2/00	31.72	None	3.34	28.38	NA
	5/17/00		None	3.86	27.86	NA
	8/30/00		None	4.99	26.73	NA

Notes:
* used 0.8 specific gravity of product
** top of casing elevation not established
ft-msl: feet-mean sea level
DTW: Depth to Water
NA: Not applicable
** Not Available

TABLE 2
ANALYTICAL RESULTS GROUNDWATER SAMPLES
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	TPH-8015 (D)	TPH-8021 (G)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	700	1,750	None
MW-1	8/31/99	310	NA	<1.0	2.4	1	1.6	NA
	11/23/99	250	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	310	62	<1.0	<1.0	<1.0	<2.0	68
	5/18/00	390	63	<1.0	<1.0	<1.0	<2.0	74
	8/31/00	**180**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**49**
MW-2	8/31/99	180	NA	<1.0	<1.0	<1.0	1.2	NA
	11/23/99	120	NA	<5.0	<5.0	<5.0	<5.0	NA
	3/1/00	510	<50	<1.0	<1.0	<1.0	<2.0	81
	5/18/00	1,100	<50	<1.0	<1.0	<1.0	<2.0	87
	8/31/00	**620**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**65**
MW-3	8/31/99	2,700	NA	<1.0	<1.0	<1.0	<1.0	NA
	11/23/99	640	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/00	620	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/00	**1,800**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<5.0**
MW-4	8/31/99	<50	NA	<1.0	<1.0	<1.0	1.6	NA
	11/23/99	<50	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	<250	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/00	80	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/31/00	**<250**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<5.0**
MW-5	8/31/99	250	NA	<1.0	<1.0	<1.0	1	NA
	11/23/99	300	NA	<5.0	<5.0	<5.0	<5.0	NA
	3/1/00	340	50	<1.0	<1.0	<1.0	<2.0	100
	5/18/00	230	<50	<1.0	<1.0	<1.0	<2.0	86
	8/30/00	**220**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**59**
MW-6	8/31/99	140,000	NA	77	18	31	49	NA
	11/23/99	6,100	NA	45	14	6.9	48	NA
	3/1/00	22,000	2,800	6.8	<2.0	<2.0	<10	<5.0
	5/17/00	1,800	6,200	77	16	39	37	<5.0
	8/31/00	**76,000**	**5,300**	**60**	**13**	**43**	**45.7**	**<5.0**
MW-7	8/31/99	1,400	NA	<1.0	2.9	2.3	2.7	NA
	11/23/99	530	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	640	860	<1.0	<1.0	<1.0	<2.0	<20
	5/17/00	430	410	<1.0	<1.0	<1.0	<2.0	9.5
	8/30/00	**950**	**1,100**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<5.0**
MW-8	8/31/99	230	NA	<1.0	<1.0	1.2	<1.0	NA
	11/23/99	220	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	260	150	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/00	660	310	<1.0	<1.0	<1.0	<2.0	<5.0
	8/30/00	**460**	**300**	**<1.0**	**<1.0**	**<1.0**	**1.4**	**<5.0**
MW-9	8/31/99	2,800	NA	<1.0	<1.0	<1.0	1.1	NA
	11/23/99	1,300	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	510	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	5/17/00	990	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/30/00	**1,100**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<5.0**
MW-10	8/31/99	1,100	NA	<1.0	1.2	2.0	<1.0	NA
	11/23/99	1,200	NA	<1.0	<1.0	<1.0	<1.0	NA
	3/1/00	1,300	540	<1.0	<1.0	<1.0	<2.0	12
	5/18/00	990	460	<1.0	<1.0	<1.0	<2.0	6.9
	8/30/00	**840**	**320**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**25**

TABLE 2
ANALYTICAL RESULTS GROUNDWATER SAMPLES
AC TRANSIT
1177 47TH STREET, EMERYVILLE, CALIFORNIA

Well	Date	TPH-8015	TPH-8021	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MCL (ppb)		None	None	1.0	150	700	1,750	None
W-1	3/1/00	1,800	3,400	20	5.3	30	23.8	<5.0
	5/17/00	1,100	7,300	35	11	59	45	<1.0
	8/30/00	**2,200**	**6,200**	**20**	**7.9**	**36**	**38.2**	**<10**
W-2	5/17/00	19,000	870	<2.0	<1.0	<2.0	<4.0	7.8
	8/30/00	**7,400**	**2,200**	**4.6**	**2.5**	**3.8**	**11**	**<10**
W-3	5/17/00	<50	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/30/00	**<50**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<5.0**
W-4	3/1/00	190	<50	1.1	<1.0	<1.0	<2.0	<5.0
	5/17/00	230	<50	<1.0	<1.0	<1.0	<2.0	<5.0
	8/30/00	**240**	**<50**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<5.0**

Notes:
ppb: parts per billion
TPH: total petroleum hydrocarbons
MCL: maximum contaminant level
NA: not analyzed

APPENDIX A

CHAIN-OF-CUSTODY DOCUMENTATION
FIELD DATA SHEETS
CERTIFIED ANALYTICAL REPORTS

SEVERN TRENT SERVICES

STL Sacramento
880 Riverside Parkway
West Sacramento, CA 95605-1500

Tel: 916 373 5600
Fax: 916 371 8420
www.stl-inc.com

October 30, 2000

STL SACRAMENTO PROJECT NUMBER: G0I010169
PO/CONTRACT: Emeryville

Brad Wright
Safety Kleen Consulting
2233 Santa Clara Ave
Suite 7
Alameda, CA 94501

Dear Mr. Wright,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on 8/31/00. These samples are associated with your AC Transit project.

The case narrative is an integral part of this report.

Preliminary results were sent via facsimile on October 25, 2000.

If you have any questions, please feel free to call me at (916)374-4414.

Sincerely,

Bonnie J McNeill

Bonnie J. McNeill
Project Manager

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STL SACRAMENTO PROJECT NUMBER G0I010169

CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER G0I010169

General Comments

Samples were received at 9 and 10 degrees Centigrade.

WATER, CA LUFT, TVPH (Gas)

High surrogate recoveries were attributed to sample matrix.

WATER, 8015 MOD, Diesel/Motor Oil

The RPD for the diesel LCS/LCSD for lot G0I010169 was above the 23% limit at 25%.

There were no other anomalies associated with this project.

STL Sacramento

Quality Control Definitions

QC Parameter	Definition
QC Batch	A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.
Duplicate Control Sample (DCS)	Consist of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects. This QC is performed only if required by client or when insufficient sample is available to perform MS/MSD.
Duplicate Sample (DU)	A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch.
Laboratory Control Sample (LCS)	A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. An LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects.
Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MSs/MSDs are carried through the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked.
Method Blank (MB)	A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps.
Surrogate Spike	Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process.

Source: STL Sacramento® Quality Control Program, Policy QA-003, Rev. 0, 8/19/96.

Sample Summary
G0I010169

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
DJR15	1	W-3	8/30/00 09:50 AM	8/31/00 05:30 PM
DJR1F	2	W-2	8/30/00 10:55 AM	8/31/00 05:30 PM
DJR1H	3	W-1	8/30/00 11:30 AM	8/31/00 05:30 PM
DJR1Q	4	MW-7	8/30/00 12:45 PM	8/31/00 05:30 PM
DJR1X	5	MW-8	8/30/00 01:20 PM	8/31/00 05:30 PM
DJR23	6	MW-9	8/30/00 01:55 PM	8/31/00 05:30 PM
DJR25	7	MW-10	8/30/00 02:35 PM	8/31/00 05:30 PM
DJR27	8	W-4	8/30/00 03:05 PM	8/31/00 05:30 PM
DJR28	9	MW-5	8/30/00 03:40 PM	8/31/00 05:30 PM
DJR2C	10	MW-2	8/31/00 08:50 AM	8/31/00 05:30 PM
DJR2D	11	MW-1	8/31/00 09:30 AM	8/31/00 05:30 PM
DJR2E	12	MW-3	8/31/00 10:25 AM	8/31/00 05:30 PM
DJR2F	13	MW-4	8/31/00 10:50 AM	8/31/00 05:30 PM
DJR2H	14	MW-6	8/31/00 11:30 AM	8/31/00 05:30 PM
DJR2J	15	TRIP BLANK	8/31/00 08:00 AM	8/31/00 05:30 PM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must no be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weigh

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
SAFETY-KLEEN CONSULTING	BRAD WRIGHT	8-30-00	52561
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
2233 SANTA CLARA AVE, #7	510-337-8660		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
ALAMEDA / CA / 94501		BONNIE M.	
Project Name	**Carrier/Waybill Number**		
AC TRANSIT EMERYVILLE			
Contract/Purchase Order/Quote No.			
792551			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	Zn Ac/ NaOH	Analysis: 8021	Analysis: 8015
W-3	8-30-00	0950	X			2			3			X	X
W-2	8-30-00	1055											
W-1		1130											
MW-7		1245											
MW-8		1320											
MW-9		1355											
MW-10		1435											
W-4		1505											
MW-5		1540											
BH TRIP BLANK		0900											

Special Instructions/ Conditions of Receipt

RECEIVED IN GOOD CONDITION UNDER COC
AUG 31 2000
INI

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other ____

QC Requirements (Specify)
STANDARD

	Date	Time		Date	Time
1. Relinquished By	8-17-00	19:30	1. Received By		
2. Relinquished By	8-31-00	1510	2. Received By Bret Brunkett	8-31	1510
3. Relinquished By Bret Brunkett	8 31	1730	3. Received By	8-31-00	1730

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
SAFETY-KLEEN CONSULTING	BRAD WRIGHT	8-31-00	52563
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
2233 SANTA CLARA, AVE. #7	510-337-8660		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
ALAMEDA / CA / 94501		BONNIE M.	
Project Name	**Carrier/Waybill Number**		
AC TRANSIT EMERYVILLE			
Contract/Purchase Order/Quote No.			
792551			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: 8021	8015
MW-2	8-31-00	0850	X			2			3			X	X
MW-1	8-31-00	0930	↓			↓			↓			↓	↓
MW-3	↓	1025											
MW-4		1050											
MW-6		1130											
TRIP BLANK	↓	0800	↓						↓				

Special Instructions/ Conditions of Receipt

RECEIVED IN GOOD CONDITION
~~UNDER COC~~
AUG 31 2000
INI: LB

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)
STANDARD

	Relinquished By	Date	Time	Received By	Date	Time
1.		8-17-00	15130			
2.		8-31-00	1510	Bret Burchett	8-31	1510
3.	Bret Burchett	8-31	1730		8-31-00	1730

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

WATER, TPH Gas/ BTEX + MTBE

Method 8021B

SAFETY KLEEN CONSULTING

Client Sample ID: W-3

GC Volatiles

Lot-Sample #...: G0I010169-001 **Work Order #...:** DJR15104 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/08/00
Prep Batch #...: 0273482
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: W-3

GC Volatiles

Lot-Sample #...: G0I010169-001 **Work Order #...:** DJR15102 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/08/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	96	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: W-2

GC Volatiles

Lot-Sample #...: G0I010169-002	**Work Order #...:** DJR1F104	**Matrix.....:** WATER	
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 2	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	**2200**	**100**	**ug/L**
Unknown Hydrocarbon	ND	100	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	144 *	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

SAFETY KLEEN CONSULTING

Client Sample ID: W-2

GC Volatiles

Lot-Sample #...: G0I010169-002 Work Order #...: DJR1F102 Matrix.....: WATER
Date Sampled...: 08/30/00 Date Received..: 08/31/00
Prep Date.....: 09/08/00 Analysis Date..: 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 2 Method.....: DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**4.6**	**2.0**	**ug/L**
Ethylbenzene	**3.8**	**2.0**	**ug/L**
Toluene	**2.5**	**2.0**	**ug/L**
m-Xylene & p-Xylene	**11**	**4.0**	**ug/L**
o-Xylene	ND	2.0	ug/L
Methyl tert-butyl ether	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	101	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: W-1

GC Volatiles

Lot-Sample #...: G0I010169-003	**Work Order #...:** DJR1H104		**Matrix.....:** WATER
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/08/00		
Prep Batch #...: 0273482			
Dilution Factor: 2	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	**6200**	**100**	**ug/L**
Unknown Hydrocarbon	ND	100	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	200 *	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

SAFETY KLEEN CONSULTING

Client Sample ID: W-1

GC Volatiles

Lot-Sample #...: G0I010169-003	Work Order #...: DJR1H102	Matrix.....: WATER	
Date Sampled...: 08/30/00	Date Received..: 08/31/00		
Prep Date.....: 09/08/00	Analysis Date..: 09/08/00		
Prep Batch #...: 0274151			
Dilution Factor: 2	Method.....: DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	20	2.0	ug/L
Ethylbenzene	36	2.0	ug/L
Toluene	7.9	2.0	ug/L
m-Xylene & p-Xylene	36	4.0	ug/L
o-Xylene	2.2	2.0	ug/L
Methyl tert-butyl ether	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	115	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-7

GC Volatiles

Lot-Sample #...: G0I010169-004	**Work Order #...:** DJR1Q104	**Matrix.....:** WATER	
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/08/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	**1100**	**50**	**ug/L**
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	155 *	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-7

GC Volatiles

Lot-Sample #...: G0I010169-004 Work Order #...: DJR1Q102 Matrix.....: WATER
Date Sampled...: 08/30/00 Date Received..: 08/31/00
Prep Date.....: 09/08/00 Analysis Date..: 09/08/00
Prep Batch #...: 0274151
Dilution Factor: 1 Method.....: DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	105	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-8

GC Volatiles

Lot-Sample #...: G0I010169-005	Work Order #...: DJR1X104	Matrix.....: WATER	
Date Sampled...: 08/30/00	Date Received..: 08/31/00		
Prep Date.....: 09/08/00	Analysis Date..: 09/08/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	Method.....: DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	300	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	189 *	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-8

GC Volatiles

Lot-Sample #...: G0I010169-005 **Work Order #...:** DJR1X102 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/08/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	**1.4**	**1.0**	**ug/L**
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	101	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Volatiles

Lot-Sample #...: G0I010169-006	**Work Order #...:** DJR23104	**Matrix.....:** WATER	
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Volatiles

Lot-Sample #...: G0I010169-006 Work Order #...: DJR23102 Matrix.....: WATER
Date Sampled...: 08/30/00 Date Received..: 08/31/00
Prep Date.....: 09/08/00 Analysis Date..: 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 Method.....: DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Volatiles

Lot-Sample #...: G0I010169-007	Work Order #...: DJR25104	Matrix.....: WATER	
Date Sampled...: 08/30/00	Date Received..: 08/31/00		
Prep Date.....: 09/08/00	Analysis Date..: 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	Method.....: DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	**320**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	114	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Volatiles

Lot-Sample #...: G0I010169-007 **Work Order #...:** DJR25102 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**25**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	99	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: W-4

GC Volatiles

Lot-Sample #...: G0I010169-008 **Work Order #...:** DJR27104 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0273482
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	122	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: W-4

GC Volatiles

Lot-Sample #...: G0I010169-008 **Work Order #...:** DJR27102 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-5

GC Volatiles

Lot-Sample #...: G0I010169-009	**Work Order #...:** DJR28104	**Matrix.....:** WATER	
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	107	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-5

GC Volatiles

Lot-Sample #...: G0I010169-009 **Work Order #...:** DJR28102 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**59**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	89	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Volatiles

Lot-Sample #...: G0I010169-010 Work Order #...: DJR2C104 Matrix.....: WATER
Date Sampled...: 08/31/00 Date Received..: 08/31/00
Prep Date.....: 09/08/00 Analysis Date..: 09/09/00
Prep Batch #...: 0273482
Dilution Factor: 1 Method.....: DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	110	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Volatiles

Lot-Sample #...: G0I010169-010 **Work Order #...:** DJR2C102 **Matrix.....:** WATER
Date Sampled...: 08/31/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**65**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Volatiles

Lot-Sample #...: G0I010169-011 **Work Order #...:** DJR2D104 **Matrix.....:** WATER
Date Sampled...: 08/31/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0273482
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	120	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Volatiles

Lot-Sample #...: G0I010169-011	Work Order #...: DJR2D102	Matrix.....: WATER
Date Sampled...: 08/31/00	Date Received..: 08/31/00	
Prep Date.....: 09/08/00	Analysis Date..: 09/09/00	
Prep Batch #...: 0274151		
Dilution Factor: 1	Method.....: DHS CA LUFT	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	**49**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	102	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Volatiles

Lot-Sample #...: G0I010169-012	**Work Order #...:** DJR2E104		**Matrix.....:** WATER
Date Sampled...: 08/31/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Volatiles

Lot-Sample #...: G0I010169-012 **Work Order #...:** DJR2E102 **Matrix.....:** WATER
Date Sampled...: 08/31/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	95	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-4

GC Volatiles

Lot-Sample #...: G0I010169-013	**Work Order #...:** DJR2F104	**Matrix.....:** WATER	
Date Sampled...: 08/31/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-4

GC Volatiles

Lot-Sample #...: G0I010169-013 **Work Order #...:** DJR2F102 **Matrix.....:** WATER
Date Sampled...: 08/31/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	93	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-6

GC Volatiles

Lot-Sample #...: G0I010169-014	**Work Order #...:** DJR2H104	**Matrix.....:** WATER	
Date Sampled...: 08/31/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	**5300**	**50**	**ug/L**
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	244 *	(70 - 130)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-6

GC Volatiles

Lot-Sample #...: G0I010169-014	Work Order #...: DJR2H102	Matrix.....: WATER	
Date Sampled...: 08/31/00	Date Received..: 08/31/00		
Prep Date.....: 09/08/00	Analysis Date..: 09/09/00		
Prep Batch #...: 0274151			
Dilution Factor: 1	Method.....: DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	60	1.0	ug/L
Ethylbenzene	43	1.0	ug/L
Toluene	13	1.0	ug/L
m-Xylene & p-Xylene	43	2.0	ug/L
o-Xylene	2.7	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	106	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: TRIP BLANK

GC Volatiles

Lot-Sample #...: G0I010169-015	**Work Order #...:** DJR2J103	**Matrix.....:** WATER	
Date Sampled...: 08/31/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/08/00	**Analysis Date..:** 09/09/00		
Prep Batch #...: 0273482			
Dilution Factor: 1	**Method.....:** DHS CA LUFT		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(70 - 130)

SAFETY KLEEN CONSULTING

Client Sample ID: TRIP BLANK

GC Volatiles

Lot-Sample #...: G0I010169-015 **Work Order #...:** DJR2J101 **Matrix.....:** WATER
Date Sampled...: 08/31/00 **Date Received..:** 08/31/00
Prep Date.....: 09/08/00 **Analysis Date..:** 09/09/00
Prep Batch #...: 0274151
Dilution Factor: 1 **Method.....:** DHS CA LUFT

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	92	(70 - 130)

QC DATA ASSOCIATION SUMMARY

G0I010169

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
002	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
003	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
004	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
005	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
006	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
007	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
008	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
009	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
010	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
011	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
012	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
013	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
014	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

G0I010169

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
015	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: G0I010169 **Work Order #...:** DLC1Q101 **Matrix.....:** WATER
MB Lot-Sample #: G0I290000-482

Prep Date.....: 09/08/00
Analysis Date..: 09/08/00 **Prep Batch #...:** 0273482
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Gasoline)	ND	50	ug/L	DHS CA LUFT
Unknown Hydrocarbon	ND	50	ug/L	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: G0I010169 **Work Order #...:** DLD3E101 **Matrix.....:** WATER
MB Lot-Sample #: G0I300000-151

Prep Date.....: 09/08/00
Analysis Date..: 09/08/00 **Prep Batch #...:** 0274151
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	DHS CA LUFT
Ethylbenzene	ND	1.0	ug/L	DHS CA LUFT
Toluene	ND	1.0	ug/L	DHS CA LUFT
m-Xylene & p-Xylene	ND	2.0	ug/L	DHS CA LUFT
o-Xylene	ND	1.0	ug/L	DHS CA LUFT
Methyl tert-butyl ether	ND	5.0	ug/L	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	98	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: G0I010169 **Work Order #...:** DLC1Q102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I290000-482 DLC1Q103-LCSD
Prep Date.....: 09/08/00 **Analysis Date..:** 09/08/00
Prep Batch #...: 0273482
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Gasoline)	**1000**	**1020**	**ug/L**	**102**		**DHS CA LUFT**
	1000	**1020**	**ug/L**	**102**	**0.18**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	107	(70 - 130)
	109	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: G0I010169 **Work Order #...:** DLD3E102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I300000-151 DLD3E103-LCSD
Prep Date.....: 09/08/00 **Analysis Date..:** 09/08/00
Prep Batch #...: 0274151
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10.0**	**9.59**	**ug/L**	**96**		**DHS CA LUFT**
	10.0	**9.56**	**ug/L**	**96**	**0.30**	**DHS CA LUFT**
Ethylbenzene	**10.0**	**9.71**	**ug/L**	**97**		**DHS CA LUFT**
	10.0	**9.63**	**ug/L**	**96**	**0.80**	**DHS CA LUFT**
Toluene	**10.0**	**9.75**	**ug/L**	**97**		**DHS CA LUFT**
	10.0	**9.64**	**ug/L**	**96**	**1.1**	**DHS CA LUFT**
m-Xylene & p-Xylene	**20.0**	**19.2**	**ug/L**	**96**		**DHS CA LUFT**
	20.0	**18.9**	**ug/L**	**94**	**1.9**	**DHS CA LUFT**
o-Xylene	**10.0**	**9.56**	**ug/L**	**96**		**DHS CA LUFT**
	10.0	**9.52**	**ug/L**	**95**	**0.37**	**DHS CA LUFT**
Methyl tert-butyl ether	**10.0**	**10.1**	**ug/L**	**101**		**DHS CA LUFT**
	10.0	**10.3**	**ug/L**	**103**	**1.7**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	93	(70 - 130)
	94	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: G0I010169 **Work Order #...:** DLC1Q102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I290000-482 DLC1Q103-LCSD
Prep Date.....: 09/08/00 **Analysis Date..:** 09/08/00
Prep Batch #...: 0273482
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Gasoline)	**102**	**(70 - 130)**			**DHS CA LUFT**
	102	**(70 - 130)**	**0.18**	**(0-35)**	**DHS CA LUFT**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	107	(70 - 130)
	109	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: G0I010169 **Work Order #...:** DLD3E102-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I300000-151 DLD3E103-LCSD
Prep Date.....: 09/08/00 **Analysis Date..:** 09/08/00
Prep Batch #...: 0274151
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	96	(70 - 130)			DHS CA LUFT
	96	(70 - 130)	0.30	(0-35)	DHS CA LUFT
Ethylbenzene	97	(70 - 130)			DHS CA LUFT
	96	(70 - 130)	0.80	(0-35)	DHS CA LUFT
Toluene	97	(70 - 130)			DHS CA LUFT
	96	(70 - 130)	1.1	(0-35)	DHS CA LUFT
m-Xylene & p-Xylene	96	(70 - 130)			DHS CA LUFT
	94	(70 - 130)	1.9	(0-35)	DHS CA LUFT
o-Xylene	96	(70 - 130)			DHS CA LUFT
	95	(70 - 130)	0.37	(0-35)	DHS CA LUFT
Methyl tert-butyl ether	101	(70 - 130)			DHS CA LUFT
	103	(70 - 130)	1.7	(0-35)	DHS CA LUFT

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene	93	(70 - 130)
	94	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

WATER, 8015 MOD, Diesel/Motor Oil

SAFETY KLEEN CONSULTING

Client Sample ID: W-3

GC Semivolatiles

Lot-Sample #...: G0I010169-001 **Work Order #...:** DJR15103 **Matrix.....:** WATER
Date Sampled...: 08/30/00 **Date Received..:** 08/31/00
Prep Date.....: 09/06/00 **Analysis Date..:** 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1 **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	117	(66 - 136)

SAFETY KLEEN CONSULTING

Client Sample ID: W-2

GC Semivolatiles

Lot-Sample #...: G0I010169-002 Work Order #...: DJR1F103 Matrix.....: WATER
Date Sampled...: 08/30/00 Date Received..: 08/31/00
Prep Date.....: 09/06/00 Analysis Date..: 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 10 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	2500	ug/L
TPH (as Diesel)	ND	500	ug/L
Unknown Hydrocarbon	**7400**	**500**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	0.0 SRD	(66 - 136)

NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

The unknown from n-C8 to n-C40 was quantitated with all peaks from n-C8 to n-C36 and based on motor oil n-c19 to n-C36.

SAFETY KLEEN CONSULTING

Client Sample ID: W-1

GC Semivolatiles

Lot-Sample #...: G0I010169-003	**Work Order #...:** DJR1H103		**Matrix.....:** WATER
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/06/00	**Analysis Date..:** 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 1	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**2200**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	132	(66 - 136)

NOTE(S):

The unknown from n-C8 to n-C32 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-7

GC Semivolatiles

Lot-Sample #...: G0I010169-004	Work Order #...: DJR1Q103		Matrix.....: WATER
Date Sampled...: 08/30/00	Date Received..: 08/31/00		
Prep Date.....: 09/06/00	Analysis Date..: 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 1	Method.....: SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**950**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	137 *	(66 - 136)

NOTE(S):

* Surrogate recovery is outside stated control limits.

The surrogate recovery in the sample is outside control limits due to confirmed matrix effect.

The unknown from n-C8 to n-C30 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-8

GC Semivolatiles

Lot-Sample #...: G0I010169-005 Work Order #...: DJR1X103 Matrix.....: WATER
Date Sampled...: 08/30/00 Date Received..: 08/31/00
Prep Date.....: 09/06/00 Analysis Date..: 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**460**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	130	(66 - 136)

NOTE(S):

The unknown from n-C8 to n-C30 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-9

GC Semivolatiles

Lot-Sample #...: G0I010169-006	**Work Order #...:** DJR23103	**Matrix.....:** WATER	
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/06/00	**Analysis Date..:** 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 1	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**1100**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	152 *	(66 - 136)

NOTE(S):

* Surrogate recovery is outside stated control limits.

The surrogate recovery in the sample is outside control limits due to confirmed matrix effect.

The unknown from n-C8 to n-C40 was quantitated with all peaks from n-C8 to n-C36 and based on motor oil n-C19 to n-C36.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-10

GC Semivolatiles

Lot-Sample #...: G0I010169-007	Work Order #...: DJR25103	Matrix.....: WATER	
Date Sampled...: 08/30/00	Date Received..: 08/31/00		
Prep Date.....: 09/06/00	Analysis Date..: 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 1	Method.....: SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**840**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	137 *	(66 - 136)

NOTE(S):

* Surrogate recovery is outside stated control limits.

The surrogate recovery in the sample is outside control limits due to confirmed matrix effect.

The unknown from n-C8 to n-C30 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: W-4

GC Semivolatiles

Lot-Sample #...: G0I010169-008	**Work Order #...:** DJR27103	**Matrix.....:** WATER
Date Sampled...: 08/30/00	**Date Received..:** 08/31/00	
Prep Date.....: 09/06/00	**Analysis Date..:** 09/27/00	
Prep Batch #...: 0250193		
Dilution Factor: 1	**Method.....:** SW846 8015 MOD	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**240**	50	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	135	(66 - 136)

NOTE(S):

The unknown from n-C8 to n-C30 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-5

GC Semivolatiles

Lot-Sample #...: G0I010169-009 Work Order #...: DJR28103 Matrix.....: WATER
Date Sampled...: 08/30/00 Date Received..: 08/31/00
Prep Date.....: 09/06/00 Analysis Date..: 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**220**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	129	(66 - 136)

NOTE(S):

The unknown from n-C8 to n-C30 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-2

GC Semivolatiles

Lot-Sample #...: G0I010169-010	Work Order #...: DJR2C103	Matrix.....: WATER	
Date Sampled...: 08/31/00	Date Received..: 08/31/00		
Prep Date.....: 09/06/00	Analysis Date..: 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 1	Method.....: SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**620**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	141 *	(66 - 136)

NOTE(S):

* Surrogate recovery is outside stated control limits.

The surrogate recovery in the sample is outside control limits due to confirmed matrix effect.

The unknown from n-C12 to n-C40 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-1

GC Semivolatiles

Lot-Sample #...: G0I010169-011	**Work Order #...:** DJR2D103	**Matrix.....:** WATER	
Date Sampled...: 08/31/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/06/00	**Analysis Date..:** 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 1	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	**180**	**50**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	121	(66 - 136)

NOTE(S):

The unknown from n-C8 to n-C30 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-3

GC Semivolatiles

Lot-Sample #...: G0I010169-012	**Work Order #...:** DJR2E103	**Matrix.....:** WATER	
Date Sampled...: 08/31/00	**Date Received..:** 08/31/00		
Prep Date.....: 09/06/00	**Analysis Date..:** 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 2	**Method.....:** SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	500	ug/L
TPH (as Diesel)	ND	100	ug/L
Unknown Hydrocarbon	**1800**	**100**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	133	(66 - 136)

NOTE(S):

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

The unknown from n-C19 to n-C36 was quantitated with all peaks from n-C8 to n-C36 and based on motor oil n-C19 to n-C36.

SAFETY KLEEN CONSULTING

Client Sample ID: MW-4

GC Semivolatiles

Lot-Sample #...: G0I010169-013 Work Order #...: DJR2F103 Matrix.....: WATER
Date Sampled...: 08/31/00 Date Received..: 08/31/00
Prep Date.....: 09/06/00 Analysis Date..: 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1 Method.....: SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	250	ug/L
TPH (as Diesel)	ND	50	ug/L
Unknown Hydrocarbon	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	104	(66 - 136)

SAFETY KLEEN CONSULTING

Client Sample ID: MW-6

GC Semivolatiles

Lot-Sample #...: G0I010169-014	Work Order #...: DJR2H103	Matrix.....: WATER	
Date Sampled...: 08/31/00	Date Received..: 08/31/00		
Prep Date.....: 09/06/00	Analysis Date..: 09/27/00		
Prep Batch #...: 0250193			
Dilution Factor: 500	Method.....: SW846 8015 MOD		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Motor Oil)	ND	120000	ug/L
TPH (as Diesel)	ND	25000	ug/L
Unknown Hydrocarbon	**76000**	**25000**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	0.0 SRD	(66 - 136)

NOTE(S):

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Elevated reporting limits. The reporting limits are elevated due to matrix interference.

The unknown from n-C8 to n-C18 was quantitated with all peaks from n-C8 to n-C36 and based on diesel n-C10 to n-C24.

QC DATA ASSOCIATION SUMMARY

G0I010169

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
002	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
003	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
004	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
005	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
006	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
007	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
008	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
009	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
010	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
011	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

G0I010169

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
012	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
013	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
014	WATER	SW846 8015 MOD		0250193	
	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	
015	WATER	DHS CA LUFT		0273482	
	WATER	DHS CA LUFT		0274151	

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: G0I010169 **Work Order #...:** DJX5X101 **Matrix.....:** WATER
MB Lot-Sample #: G0I060000-193

Prep Date.....: 09/06/00
Analysis Date..: 09/27/00 **Prep Batch #...:** 0250193
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Motor Oil)	ND	250	ug/L	SW846 8015 MOD
TPH (as Diesel)	ND	50	ug/L	SW846 8015 MOD
Unknown Hydrocarbon	ND	50	ug/L	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	95	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G0I010169 **Work Order #...:** DJX5X104-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I060000-193 DJX5X105-LCSD
Prep Date.....: 09/06/00 **Analysis Date..:** 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Motor Oil)	**900**	**823**	**ug/L**	**91**		**SW846 8015 MOD**
	900	**861**	**ug/L**	**96**	**4.5**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	104	(66 - 136)
	107	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G0I010169 **Work Order #...:** DJX5X106-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I060000-193 DJX5X107-LCSD
Prep Date.....: 09/06/00 **Analysis Date..:** 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Diesel)	**300**	**197**	**ug/L**	**66**		**SW846 8015 MOD**
	300	**254 p**	**ug/L**	**85**	**25**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	109	(66 - 136)
	104	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: G0I010169 **Work Order #...:** DJX5X104-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I060000-193 DJX5X105-LCSD
Prep Date.....: 09/06/00 **Analysis Date..:** 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Motor Oil)	**91**	**(50 - 150)**			**SW846 8015 MOD**
	96	**(50 - 150)**	**4.5**	**(0-30)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	104	(66 - 136)
	107	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: G0I010169 **Work Order #...:** DJX5X106-LCS **Matrix.....:** WATER
LCS Lot-Sample#: G0I060000-193 DJX5X107-LCSD
Prep Date.....: 09/06/00 **Analysis Date..:** 09/27/00
Prep Batch #...: 0250193
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Diesel)	**66**	**(50 - 129)**			**SW846 8015 MOD**
	85 p	**(50 - 129)**	**25**	**(0-23)**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	109	(66 - 136)
	104	(66 - 136)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

DEPTH TO WATER

DATE: 8-30-00

PROJECT AC Transit Emeryville EVENT Quarterly TECHNICIAN BH/GP

NO.	WELL OR LOCATION	DATE	TIME	MEASUREMENT	CODE	COMMENTS	GROUND H2O ELEV
1	MW-1	8-30-00	820	5.18	SWL		27.38
2	MW-2		824	4.65			27.47
3	MW-3		818	6.20			27.86
4	MW-4		816	6.26			27.85
5	MW-5		821	4.53			27.17
6	MW-6		901	4.40		Gas + Diesel Sheen	26.62
7	MW-7		837	5.50			24.12
8	MW-8		838	5.02			24.41
9	MW-9		847	4.64			24.54
10	MW-10		850	9.68			19.45
11	W-1		832	6.71			26.72
12	W-2		830	7.37			26.84
13	W-3		827	8.16			29.30
14	W-4		853	4.99			26.73

CODES: SWL - Static Water Level
OIL - Oil Level
OWI - Oil/Water Interface
MTD - Measured Total Depth

Well ID: W-3

Project Name: ACT EMERYVILLE
Project Number: 792557
Casing Diameter (in): 2"
Sample Date: 8-30-00
Total Well Depth (ft): 29.42
Sample ID: W-3
Depth to Water (ft), before purging: 8.16

Development Method:

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

✓ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
✓ Non-Dedicated Submersible Pump
CENTRIFUGAL

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
0931	7.6	648	28.5	11.64	3	.41
0935	6.9	611	28.0	12.02	6	↓
0943	6.6	614	27.9	12.66	9	↓
				TOTAL	VOLUME =	11 gal

Water Volume to be Purged (gal) = (29.42 - 8.16) = 21.26 x .165 = 3.51 x 3 = 10.5
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

✓ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

TRIP BLANK

CENT PUMP TO PURGE

Parameter Collected: 8021 8015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

D/W S/M

Comments / Calculations:

START: 0920
STOP: 0947
SAMPLE: 0952

Signature: BRIAN H.

Project Name: ACT EMERYVILLE
Project Number: 7912551
Casing Diameter (in): 2"
Sample Date: 8-30-00
Total Well Depth (ft): 28.61
Sample ID: W-2
Depth to Water (ft), before purging: 4.65

Development Method:

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

✓ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1023	6.3	895	30.4	10.12	3.5	.414
1035	6.3	915	27.8	11.46	7.0	↓
1041	6.3	900	27.5	12.45	10.5	↓
				Total Vol purged = 12 gal.		

Water Volume to be Purged (gal) = 28.61 - 4.65 = 23.96 x .165 = 3.95 x 3 = 11.9
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

✓ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 1021, 1015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

CENT PUMP TO PURGE

Decontamination Performed:

D/W S/M

Comments / Calculations:

ODOR PRESENT!

START: 1012
STOP: 1041
SAMPLE: 1055

Signature: B. Y. A Hamilton

Project Name: AMT EMERYVILLE
Project Number: 79255
Casing Diameter (in): 2"
Total Well Depth (ft): 16.43
Sample Date: 8-30-00
Depth to Water (ft), before purging: 5.18
Sample ID: W-1

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1114	6.4	962	28.4	7.21	1.5	.51
1117	6.3	972	27.9	7.37	3.0	↓
1120	6.3	975	27.6	7.45	4.5	↓
				TOTAL	PUMPED =	5.6

Water Volume to be Purged (gal) = 16.43 - 5.18 = 11.25 x .165 = 1.86 x 3 = 5.57
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8015, 8021
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

CENT PUMP TO PURGE

Decontamination Performed:

RINSED/WASHED SOUNDER/METERS

Comments / Calculations:

START 11:11
STOP 11:22
SAMPLE 11:30

Signature: Brad A Hanson

Project Name: AC EMERYVILLE
Project Number: 792551
Casing Diameter (in): 2"
Sample Date: 8-30-00
Total Well Depth (ft): 24.53
Sample ID: MW-7
Depth to Water (ft), before purging:

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

PUMP SLOW

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1205	6.2	1006	41.7	10.70	3	.19
1227	6.0	1029	41.1	14.35	6	↓
1238	6.0	1031	40.4	17.47	9	↓
				Total Vol →	10 gal	

Water Volume to be Purged (gal) = 24.53 - 5.50 = 19.0 x .165 = 3.14 x 3 = 9.4
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015 CENT PUMP TO PURGE
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

R/W S/M

Comments / Calculations:

START : 1149
STOP : 1241
SAMPLE : 1245

Signature: Brady A. Hanson

Project Name: ACT EMERYVILLE
Casing Diameter (in): 2"
Total Well Depth (ft): 20.67
Depth to Water (ft), before purging: 5.02

Project Number: 21551
Sample Date: 8/30/00
Sample ID: MW-8

Development Method: NA
____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1304	6.3	1129	31.2	8.56	2.5	.45
1309	6.2	1135	29.4	9.79	5.0	↓
1314	6.2	1136	29.1	10.10	7.5	↓
				TOTAL	VOLUME =	7.7

Water Volume to be Purged (gal) = 20.67 - 5.02 = 15.7 x .165 = 2.58 x 3 = 7.7
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. well
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:
X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

CENT PUMP TO PURGE

Decontamination Performed:

R/W S/M

Comments / Calculations:

START : 1258
STOP : 1315
SAMPLE : 1320

Signature: [signature]

Project Name: ACT EMERYVILLE
Project Number: 792551
Casing Diameter (in): 2"
Sample Date: 8-30-00
Total Well Depth (ft): 20.52
Sample ID: MW-9
Depth to Water (ft), before purging: 4.64

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1337	6.3	1116	32.6	9.64	2.5	.36
1343	6.4	1159	31.5	9.14	5.0	↓
1349	6.2	1162	31.1	10.15	7.5	↓
				TOTAL	VOLUME =	7.5

Water Volume to be Purged (gal) = 20.52 - 4.64 = 15.88 x .165 = 2.62 x 3 = 7.86
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015 CENT. PUMP TO PURGE
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed: RINSED/WASHED SOUNDERS/METERS

Comments / Calculations:

START : 1328
STOP : 1350
SAMPLE : 1355

Signature: Brad A. Howe

Project Name: ACT EMERYVILLE
Project Number: 792551
Casing Diameter (in): 2"
Sample Date: 8-30-02
Total Well Depth (ft): 24.15
Sample ID: MW-10
Depth to Water (ft), before purging: 9.68

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1419	6.5	810	29.6	10.55	2.0	.44
1423	6.5	790	29.4	10.58	4.0	↓
1427	6.4	790	29.0	11.32	6.0	↓
				TOTAL	VOLUME = 7.5	

Water Volume to be Purged (gal) = 24.15 - 9.68 = 14.47 x .165 = 2.39 x 3 = 7.16
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wel
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

__X__ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015
Sample Appearance

CENT PUMP TO PURGE

____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

R/W S/M

Comments / Calculations:

START : 1412
STOP : 1429
SAMPLE : 1435

Signature:

Project Name: ACT EMERYVILLE
Casing Diameter (in): 2"
Total Well Depth (ft): 16.93
Depth to Water (ft). before purging: 4.99

Project Number: 792551
Sample Date: 8-30-00
Sample ID: W-4

Development Method: NA
____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Non-Dedicated Submersible Pump ____ Bladder Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1454	6.4	1070	30.8	5.82	2	.40
1458	6.4	1090	31.6	5.86	4	↓
1502	6.4	1097	30.9	7.66	6	↓
				TOTAL	VOLUME =	6

Water Volume to be Purged (gal) = 16.93 - 4.99 = 11.94 X .165 = 1.97 X 3 = 5.91
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:
_X_ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Non-Dedicated Submersible Pump ____ Bladder Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

CENT PUMP TO PURGE

Decontamination Performed:
Rinsed/washed sounder/meters

Comments / Calculations:

START: 1448
STOP: 1503
SAMPLE: 1505

Signature: Brenda A. Harmon

Project Name: ACT EMERYVILLE
Project Number: 792551
Casing Diameter (in): 2"
Sample Date: 8-30-00
Total Well Depth (ft): 19.49
Sample ID: MW-5
Depth to Water (ft), before purging: 4.53

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1524	6.7	720	28.5	6.15	2.5	.625
1527	6.7	717	27.3	6.34	5.0	↓
1530	6.7	720	27.0	6.42	7.5	↓
				TOTAL PURGED = 7.5		

Water Volume to be Purged (gal) = (19.49 - 4.53) = 14.96 x .165 = 2.47 x 3 = 7.4
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

CENT PUMP TO PURGE

Decontamination Performed:

R/W S/M

Comments / Calculations:

START 1520
STOP 1532
SAMPLE 1540

Signature: Brad Howard

Project Name: PCT EMERYVILLE
Project Number: 792551
Casing Diameter (in): 2"
Sample Date: 8-31-00
Total Well Depth (ft): 14.56
Sample ID: MW-2
Depth to Water (ft), before purging: 4.65

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
0835	7.10	711	27.4	5.27	1.5	.33
0840	6.95	671	31.1	5.52	3.0	↓
0843	6.91	697	31.1	5.56	4.5	↓
				TOTAL	PUMPED	5.0

Water Volume to be Purged (gal) = 14.56 − 4.65 = 9.91 × .165 = 1.64 X3 = 4.91
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

TRIP BLANK

Parameter Collected: 8021, 8015
Sample Appearance

CENT PUMP TO PURGE

____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:

R/W S/M

Comments / Calculations:

START : 0830
STOP : 0845
SAMPLE : 0850

Signature: Brad A. Hamden Date: 8-31-00

Project Name: ALT EMERYVILLE
Project Number: 792551
Casing Diameter (in): 2"
Total Well Depth (ft): 14.50
Depth to Water (ft), before purging: 5.18
Sample Date: 8-31-00
Sample ID: MW-1

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
0917	6.76	694	31.5	6.33	1.5	.33
0921	6.74	693	31.6	6.56	3.0	↓
0925	6.73	687	31.6	6.58	4.5	↓
				TOTAL	PUMPED =	5.0

Water Volume to be Purged (gal) = 14.50 - 5.18 = 9.32 x .165 = 1.54 x 3 = 4.61
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

CENT PUMP TO PURGE

Decontamination Performed:

RINSED/WASHED SOUNDERS/METERS

Comments / Calculations:

START: 0912
STOP: 0927

SAMPLE: 0930

Signature: Barb A. Houser

Project Name: ACT EMERYVILLE
Project Number: 742551
Casing Diameter (in): 2"
Sample Date: 8-31-00
Total Well Depth (ft): 14.68
Sample ID: MW-3
Depth to Water (ft), before purging: 6.20

Development Method: NA

____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1008	6.35	725	35.0	7.52	1.5	.24
1013	5.50	734	34.3	7.75	3.0	↓
1018	5.54	730	34.1	7.90	4.5	↓
				TOTAL	PUMPED	4.5

Water Volume to be Purged (gal) = 14.68 - 6.20 = 8.48 x .165 = 1.40 x 3 = 4.20
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:

X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic

____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015
CENT. PUMP TO PURGE
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed:
R/W S/M

Comments / Calculations:
START : 1000
STOP 1019
SAMPLE : 1025

Signature: Brad A. Hawver 9-28-00

Project Name: ACT EMERYVILLE
Casing Diameter (in): 2"
Total Well Depth (ft): 14.95
Depth to Water (ft), before purging: 6.26

Project Number: 792551
Sample Date: 8-31-00
Sample ID: MW-4

Development Method: NA
____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1042	6.29	723	28.9	8.33	1.5	.48
1044	6.34	720	29.3	8.84	3.0	↓
1047	6.35	720	29.6	8.75	4.5	↓
		TOTAL VOLUME PURGED =			4.5	

Water Volume to be Purged (gal) = 14.95 − 6.26 = 8.69 x .165 = 1.43 X 3 = 4.3
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:
X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

Parameter Collected: 8021, 8015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

CENT PUMP TO PURGE

Decontamination Performed:

H/W S/M

Comments / Calculations:

START: 1039
STOP: 1048
SAMPLE: 1050

Signature: Brad N. Hanson

Project Name: ACT EMERYVILLE
Casing Diameter (in): 2"
Total Well Depth (ft): 19.64
Depth to Water (ft), before purging: 4.40

Project Number: 792551
Sample Date: 8-31-00
Sample ID: MW-6

Development Method: NA
____ Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

Time	pH	Conduct. (umho/cm)	Temp. (Celsius)	Water Level (to 0.01 ft)	Cum. Vol. (gal)	Pump Rate (GPM)
1120	6.71	1043	25.8	5.30	2.5	1.07
1122	6.72	1063	25.7	5.22	5.0	↓
1124	6.77	1058	25.6	4.63	7.5	↓
				TOTAL	PUMPED =	7.5

Water Volume to be Purged (gal) = 19.64 - 4.40 = 15.24 x .165 = 2.5 x 3 = 7.54
(Casing Length in Ft - Depth to Water in Ft) x X x 3
Where X = 1 Well Volume in gal/ft, X = 0.165 for 2 in. wells, X = 0.37 for 3 in. wells, X = 0.65 for 4 in. wells
NOTE: 3 to 5 Well Casing Volumes required prior to sample collection.

At least 3 well casing volumes were removed prior to sampling.

Sample Collection Method:
X Bailer: ____ Teflon ____ Stainless Steel ____ PVC ____ ABS Plastic
____ Pump: ____ Dedicated Submersible Pump ____ Bladder Pump
____ Non-Dedicated Submersible Pump

QA/QC Samples if any (Duplicate, Field Blank, Rinse Blank, etc.):

CENT PUMP TO PURGE

Parameter Collected: 8021, 8015
Sample Appearance
____ OVA Reading (ppm)
____ Suspended Solids (describe):

Decontamination Performed: K/W S/M

Comments / Calculations:

START: 1118
STOP: 1125
SAMPLE: 1130

ODOR PRESENT

Signature: Brian K Hanson Date: 8-31-00